

NETWORKS

FAQ

Q Why should I encrypt my powerline network with a password?

A Powerline networking uses your electrical cabling as network cables. It does this by running high-frequency transmissions over the cables, which don't interfere with the power supply. However, as electrical cables aren't shielded they can act as an antenna, in effect broadcasting your network signal over a short distance.

This is good when it comes to the ring main, as the signal can be broadcast and carried from one ring to another. The downside is that your signal can also be broadcast to your neighbours' power cables, too. To prevent a neighbour with powerline networking being able to join your network, you should password-protect your installation, encrypting the data and stopping unauthorised access to your network.

David Ludlow
Deputy Editor

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D-LINK DHP-301

★★★★★
£96 inc VAT



D-Link is the latest company to offer HomePlug network adaptors with its DHP-301 networking kit. It comes with two HomePlug AV Ethernet adaptors that run your PC's network connection over your power lines.

The adaptors come unconfigured and can talk to any HomePlug AV kit that hasn't had encryption turned on. D-Link ships the simple configuration software on a CD, which allows you to assign a password to your kit.

We ran our usual throughput tests and were impressed with the high speed. While not as quick as wired Ethernet, the results were similar to high-performance Draft-N wireless networking kit. There's enough bandwidth for file sharing and streaming HD video.

The price is also really good, and the DHP-301 costs a little less than our previous favourite kit, Devolo's dLAN 200 AVdesk Starter Kit.

David Ludlow



SUMMARY

- ✓ Fast
- ✓ Good value
- ✗ Big plugs

POWERLINE NETWORKING KIT
Two 200Mbit/s HomePlug AV Ethernet adaptors
PART CODE DHP-301
SUPPLIER www.lambda-tek.com
DETAILS www.dlink.co.uk

PERFORMANCE (see page 62)

File transfer 58.4Mbit/s

-50% Reference +50% +100%

SLING MEDIA SlingLink Turbo

★★★★
£70 inc VAT

Sling Media is better known for its Slingbox (see 'Also Consider...', page 42), but with the SlingLink Turbo kit the company is moving into the powerline networking market.

The manual describes the products as a way to connect your Slingbox to your router without having to run cables or resort to wireless, but you can use them for any device with an Ethernet port.

The adaptors use HomePlug 85Mbit/s. They come unconfigured, with no encrypting password, although you can download a utility to configure them from Sling Media's homepage.

Performance was roughly what we'd expect from 85Mbit/s HomePlug kit, but you can bag a similar Solwise kit for £53, or the faster D-Link's DHP-301 (above) for £26 more.

David Ludlow



SUMMARY

- ✓ Nice design
- ✗ Expensive for 85Mbit/s equipment
- ✗ No configuration utility

POWERLINE NETWORKING KIT Two HomePlug 85Mbit/s Ethernet adaptors
PART CODE None
SUPPLIER Sling Media 020 7294 0157
DETAILS www.slingmedia.com

PERFORMANCE (see page 62)

File transfer 27.6Mbit/s

-50% Reference +50% +100%

Also consider...

BUFFALO Wireless G Broadband ADSL2+ Modem Router

★★★★★
£37 inc VAT

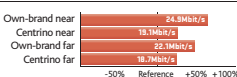


If all you're after is a way of sharing

your ADSL connection wirelessly, this router is amazing value. Its performance with our Centrino notebook was excellent and we got very good range from it. It's a little tricky to set up, however, as the web interface is quite messy.



WIRELESS ADSL ROUTER
802.11g (54Mbit/s), 4x 10/100 LAN ports, WAN port (ADSL2+ modem), UPnP **PART CODE** WBMR-G54 **SUPPLIER** www.lambda-tek.com **DETAILS** www.buffalo-technology.com
✓ Good all-round performance; cheap ✗ Fiddly setup
FULL REVIEW Jun 2007



LINKSYS WAG325N Wireless-N ADSL Gateway

★★★★★
£80 inc VAT

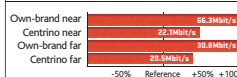


Linksys's WAG325N Wireless-N

ADSL Gateway managed the fastest transfer rates we've ever seen from wireless kit in our tests, and its range was excellent, too. Centrino performance was equally impressive, and we had no trouble connecting at 25 metres. The router was very simple to set up and configure, and it's also excellent value.



WIRELESS ADSL ROUTER Draft 802.11n (300Mbit/s), 4x 10/100 Ethernet ports, WAN port (ADSL2+ modem), UPnP, QoS **PART CODE** WAG325N **SUPPLIER** www.lambda-tek.com **DETAILS** www.uk.linksys.com
✓ Excellent range; stunning throughput ✗ Adaptor client software not Vista-compliant
FULL REVIEW Sep 2007





US ROBOTICS Wireless Ndx Router

★★

£90 inc VAT

US Robotics' Wireless Ndx Router is the company's first Draft-N router and the first major update to its range since it launched its MaxG router around 18 months ago. The Ndx uses the same silver case as the MaxG, but there are now three antennas rather than one.

There's no CD configuration tool, so configuration has to be performed through the webpage. The thorough setup wizard takes you through internet and security settings, though.

There's also a Secure Easy Setup (SES) mode, which lets you automatically transmit wireless settings to a compatible client. It's activated by a button on the back of the router, and you just need to run the compatible client. It's similar to Buffalo's AOSS and worked perfectly with our test US Robotics PC card.

Testing with our Centrino notebook produced good results at near and far ranges, but we couldn't get a stable connection at 25m. Switching to the Wireless Ndx PC Card (around £45) produced even worse results and we couldn't get a fast connection at all. We noticed that the card was connecting only at 130Mbit/s. Checking the wireless settings in the web-management page, we found that the automatic wireless settings had put the router into 20MHz mode. We forced it into 40MHz mode, and the client software told us we were connected at 270Mbit/s. However, running our tests produced slower transfer results, so we switched back to the 20MHz mode. The results were no better than we'd expect from a standard 802.11g router. It was disappointing that we couldn't get a connection at 25m.

These poor results make it impossible to recommend this router. Linksys's WAG325N Wireless-N ADSL Gateway (see 'Also Consider...', left) costs a similar amount and has much better Centrino and Draft-N performance.

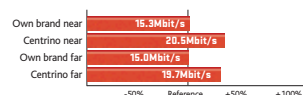
David Ludlow

SUMMARY

- ✓ Easy to set up
- ✗ Slow Draft-N performance
- ✗ Poor range

ADSL WIRELESS ROUTER Draft 802.11n (270Mbit/s), 4x 10/100 Ethernet ports, WAN port (ADSL2+ modem), UPnP
PART CODE USR015464
SUPPLIER www.morecomputers.co.uk
DETAILS www.usrobotics.com

PERFORMANCE (see page 62)



BILLION BiPAC 7300G

★★★★

£43 inc VAT

If you're looking to share a broadband connection, you don't need anything quicker than an 802.11g wireless router. Billion's BiPAC 7300G is aimed at this entry-level market, but it's been designed to show that you don't have to give up on features when you opt for a low-price router.

To this end, the BiPAC 7300G is probably the most comprehensive entry-level router that we have reviewed. It has Quality of Service (QoS) built-in, to prevent your connection being flooded by bandwidth-hungry applications, and one of the most comprehensive firewalls you'll see, too. Its configuration isn't for the faint-hearted, and most people will be best off leaving the default settings alone.

As a result, it's a little trickier to set up than rival routers from bigger brands. The web configuration page isn't particularly neat and the Quick Start wizard doesn't help you configure wireless settings, just internet settings. Some of the terminology is a little confusing, too. Instead of simply being able to select that your WAN IP address is handled automatically by your ISP, an address of 0.0.0.0 has to be entered. This could be a little too tricky for novice users to deal with.

The wireless settings are comprehensive and the BiPAC 7300G supports WEP, WPA and WPA2 encryption, so you'll be able to protect your network no matter what clients you want to connect to.

Performance was about average for an 802.11g wireless router, although we were pleased that we could get a connection at 25m. With a throughput of 2.67Mbit/s at this range, it's fine for web browsing. The connection remained stable at all times and the connection never dropped.

The BiPAC 7300G is a stable and feature-packed 802.11g wireless router, but it's a little tricky to configure. Enthusiasts that want control over every setting, however, will love it.

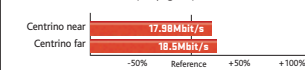
David Ludlow

SUMMARY

- ✓ Powerful firewall
- ✓ Good performance
- ✗ Difficult to configure

WIRELESS ADSL ROUTER 802.11g (54Mbit/s), WAN port (ADSL2+ modem), 4x 10/100 Ethernet ports, UPnP
PART CODE BiPAC 7300G
SUPPLIER www.broadbandstuff.co.uk
DETAILS www.billion.co.uk

PERFORMANCE (see page 62)



SENAO NET-EL-ECB-8610

★★

£135 inc VAT

Senao's NET-EL-ECB-8610 is designed to be either a wireless access point, adding wireless access to an existing wired network, or a wireless bridge, turning a wired client into a wireless one. It can also be used in a wireless distribution system (WDS) to increase the range of an existing network. It supports 802.11b/g and 802.11a (5GHz), which is less prone to interference.

The product is set up as a wireless bridge out of the box, where it needs configuring to join an existing wireless network. This is done through the web-based management page. A status page displays a list of the wireless networks it could connect to, but there's no way to select which one to join. Instead, you have to note the SSID and enter this manually on a separate page. A friendlier interface would have made it much easier to configure.

If you want to use the NET-EL-ECB-8610 as a wireless access point, you have to click the button to switch it to this mode. This has the slightly confusing effect of changing the default web-management IP address from 192.168.1.1 to 192.168.1.2. We're not exactly sure why this is necessary.

Configuration of the access point is simple, but there's no wizard to take you through configuring the SSID and security settings, so you need to do this manually. The NET-EL-ECB-8610 supports WEP, WPA and WPA2, so you can match your security to the devices that you're going to connect to your network.

We tested performance using the product in access point mode using 802.11g and a Centrino notebook. The results at near and far range were average for a standard 54Mbit/s 802.11g access point; the throughput of 2.42Mbit/s at 25m is fine for web browsing but not for anything more bandwidth-intensive.

The NET-EL-ECB-8610 isn't a bad product, and it's flexible in the types of network it can connect to, but it's expensive and confusing to configure, making it hard to recommend.

David Ludlow

SUMMARY

- ✓ Flexible network support
- ✗ Confusing to configure
- ✗ Expensive

WIRELESS BRIDGE 802.11a/b/g (54Mbit/s), Ethernet port, wireless access point mode
PART CODE NET-EL-ECB-8610
SUPPLIER www.solwise.co.uk
DETAILS www.solwise.co.uk

PERFORMANCE (see page 62)

